Infinity®

Composition Series

P-FR (Prelude)

SERVICE MANUAL

Infinity Systems, Inc.
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Woodbury, New York 11797

Rev0 8/2004

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Infinity continually strives to update and improve existing products, as well as create new ones. The specifications and details in this and related publications are therefore subject to change without notice.

SPECIFICATIONS

PERFORMANCE DATA

Frequency Range:	25 ~ 20,000 Hz (–6 dB @ 25 Hz) 35 ~ 20,000 Hz (± 2 dB)
Sensitivity:	96 dB @ 2.83 V and 1 m (anechoic conditions)
Impedance:	6 Ω
Maximum Peak Output:	118 dB (spl on program)
Amplifier Requirements:	Recommended for use with amplifiers 10 ~ 150W (@ 8 Ω)

DRIVE UNITS

Low Frequency:	1 x 12" (300 mm) high-efficiency, long-throw, linear motor, magnetically shielded
Lower Mid:	4 x 5 ¼" (125 mm) high-efficiency, long-throw, magnetically shielded
Upper Mid:	2 x 4" (100 mm) high-efficiency, polypropylene diaphragm, magnetically shielded
High Frequency:	1 x 1" (25 mm) soft dome, high-efficiency, neodymium magnet, magnetically shielded, elliptical wave guide
Crossover Frequencies:	110, 350, 3,000 Hz

AMPLIFIER

(BUILT-IN POWER AMPLIFIER FOR LOW-FREQUENCY SECTION)

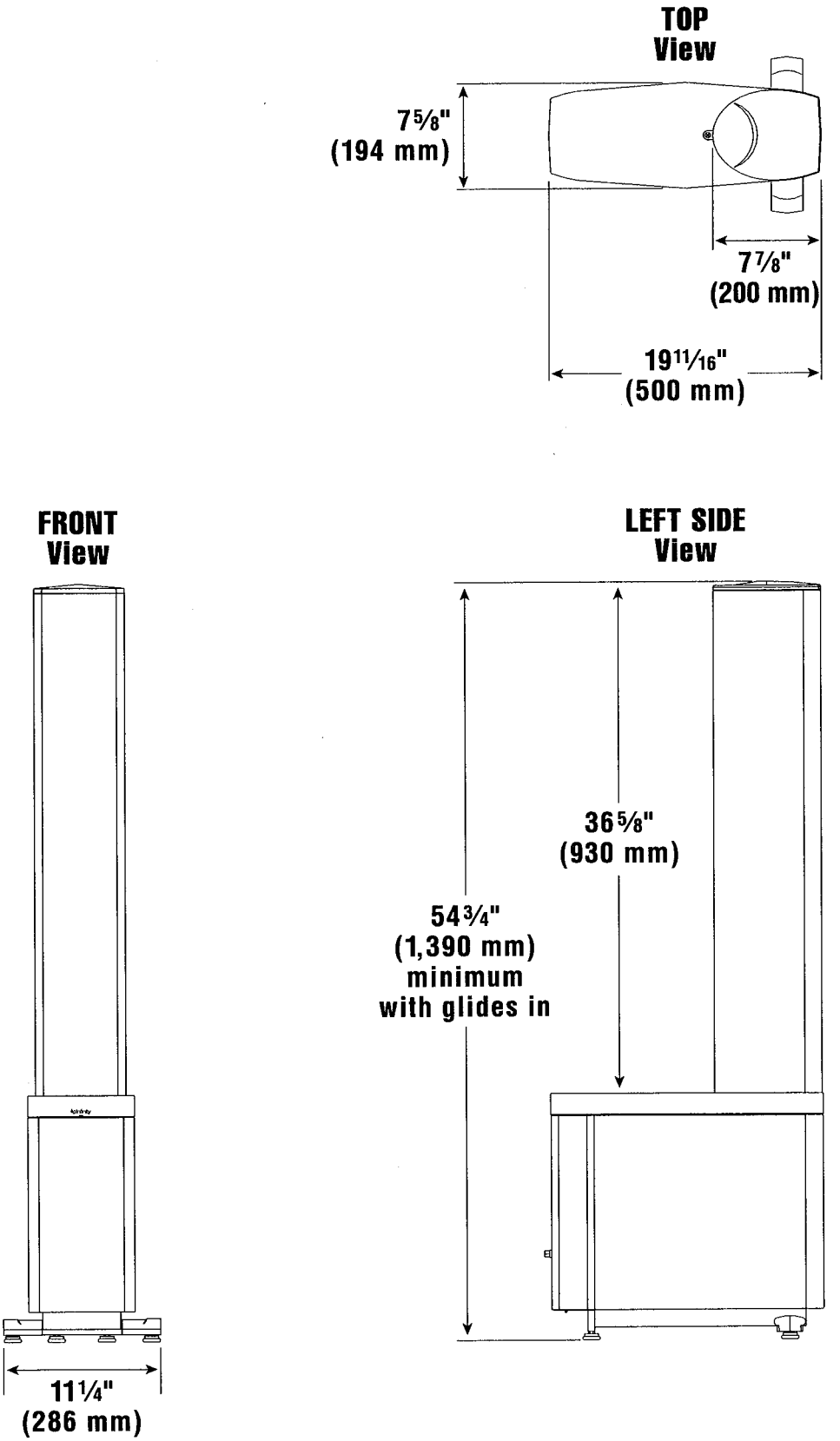
Peak Output:	350 VA
Power Supply:	120 V~ 60 Hz
Power Consumption:	300 W (maximum), 8 W (standby)

DIMENSIONS

(also see Figure 14 on the next page)

Width:	7 ⅝" or 194 mm (not including feet)
Height:	54 ¾" or 1,390 mm (minimum – glides in)
Depth:	19 ⅝" or 500 mm (maximum depth)
Weight:	78 lb or 34.5 kg (each)

Figure 14. Overall dimensions of the Compositions P-FR speaker.



WIRING THE SYSTEM

After initially placing the speakers, you are ready to connect your system. First turn off all audio system power. Use high-quality speaker wire to make your connections, as shown in the wiring diagram (on the next page). Consult the owner's manuals that were included with your amplifier, receiver, or television to confirm connection procedures.

IMPORTANT!

On your Dolby Pro Logic preamplifier or A/V receiver, set the center-channel mode to NORMAL. This will route the low frequencies (below 100 Hz) away from the center-channel speaker to the front left and right speakers.

Compositions P-FR speakers have gold-plated terminals that accept a variety of wire connectors. Observe polarities when making speaker connections, as shown in Figures 9 (below) and 10 (on the next page).

These full-range speakers have integrated powered 12" subwoofers and only require one set of output leads for the left and right channels. Connect each + terminal on the back of the amplifier, receiver, or television to the respective + (red) terminal on each Compositions P-FR speaker. Similarly, connect the (black) terminals in the same way.

IMPORTANT!

Do not reverse polarities (i.e., + to - or - to +) when making connections. Doing so will cause poor imaging and diminished bass response.

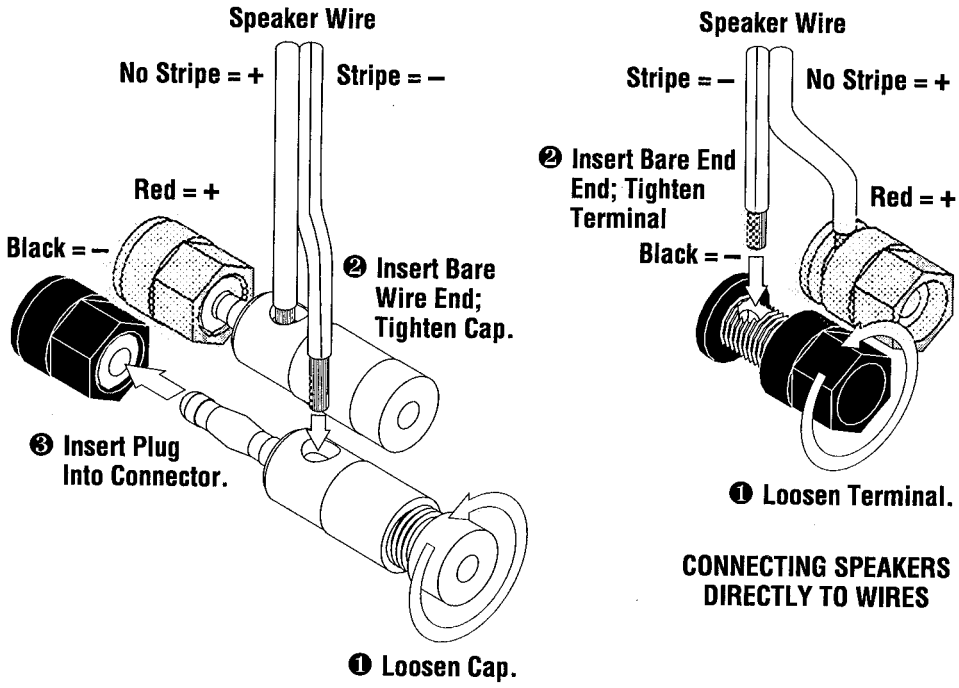


Figure 9. Compositions P-FR speakers feature gold-plated terminals that can be connected in several different ways; e.g., banana plugs, spade terminals (not shown), and direct wiring.

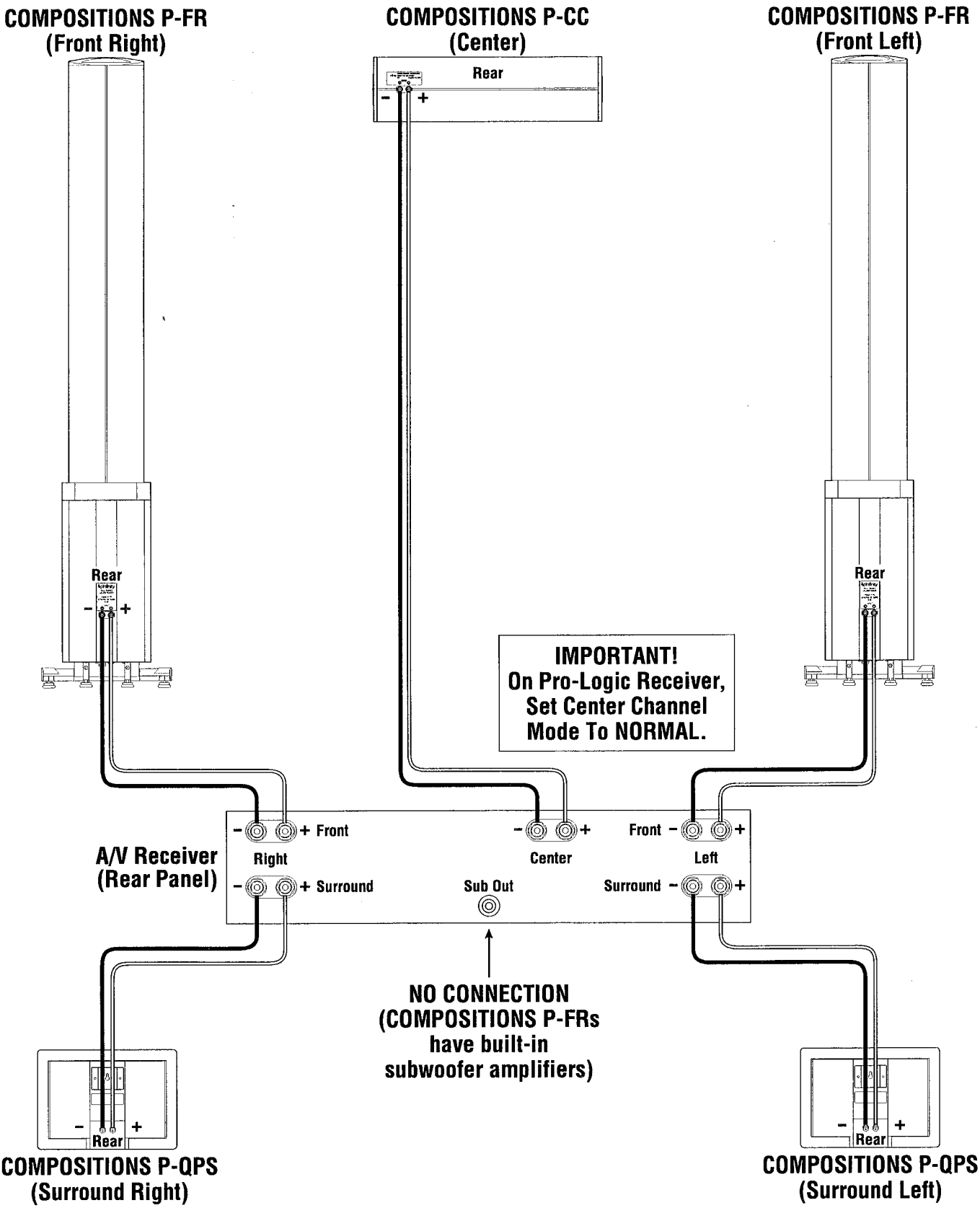

COMPOSITIONS P-FR
(Front Right)
COMPOSITIONS P-CC
(Center)
COMPOSITIONS P-FR
(Front Left)
Rear
Rear
Rear
IMPORTANT!
On Pro-Logic Receiver,
Set Center Channel
Mode To NORMAL.
A/V Receiver
(Rear Panel)
Front
Right
Surround
Center
Sub Out
Front
Left
Surround
NO CONNECTION
(COMPOSITIONS P-FRs
have built-in
subwoofer amplifiers)
Rear
Rear
COMPOSITIONS P-QPS
(Surround Right)
COMPOSITIONS P-QPS
(Surround Left)

Figure 11. Adust the front glides so each speaker is level, lock them in place, and clip on the foot covers.

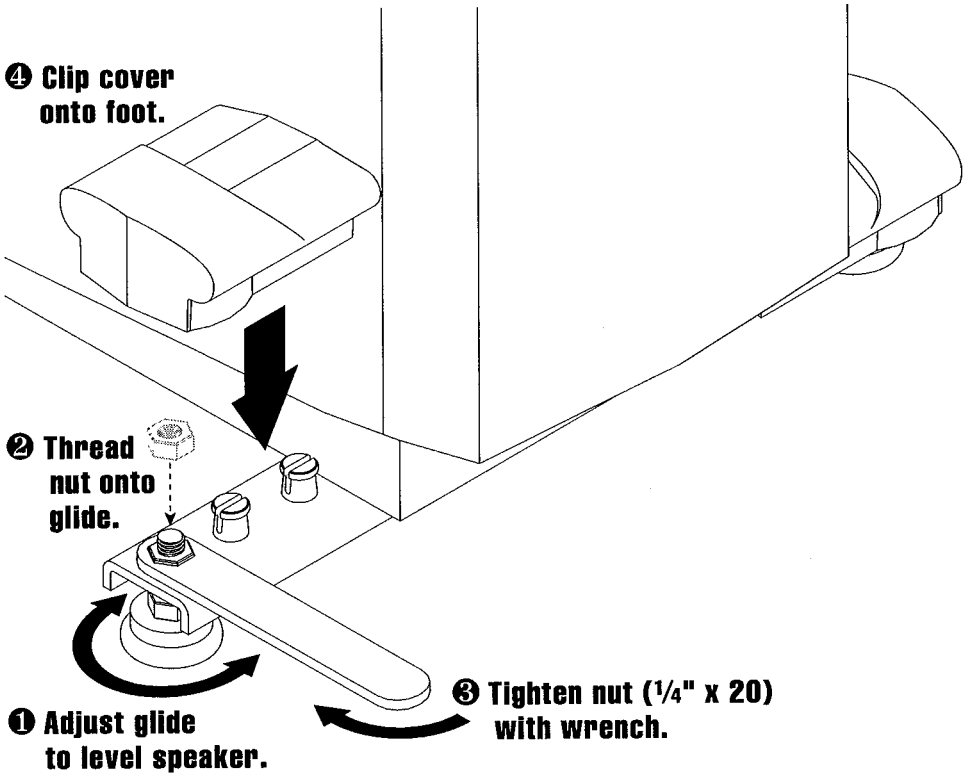
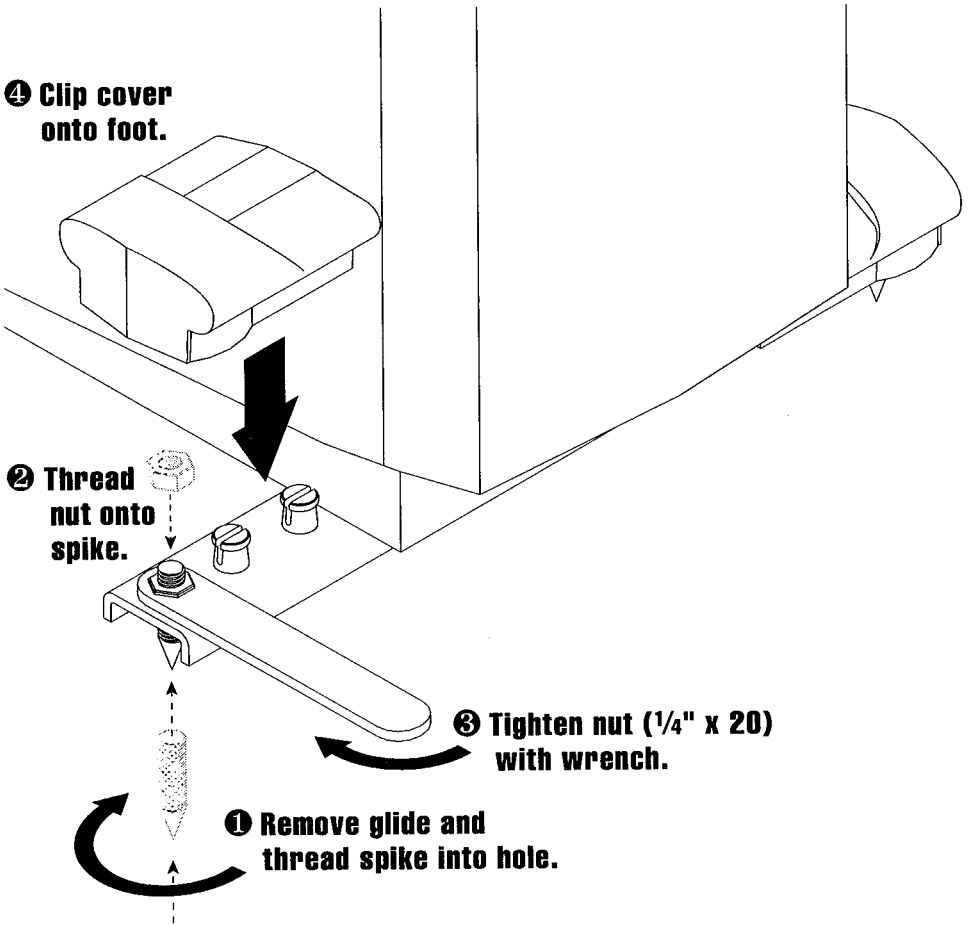


Figure 12. (Optional) On heavy carpeting, the enclosed spikes may be used in place of glides.



Operating The System

Each Compositions P-FR speaker contains a built-in power amplifier that drives the subwoofer and only requires connection of the ac power cord. Subwoofer amplifier controls are preset at the factory for normal operation. For a description of the factory-preset controls and optional adjustments, refer to *Subwoofer Amplifier Controls* on page 11.

Power On...

1. After speaker wiring has been completed, connect each speaker's ac power cord to the nearest ac receptacle. You should see an LED illuminate (on the front of each speaker), indicating the amplifier is on. If not, make sure the POWER switch is ON (see Figure 13 on page 11, or refer to *Troubleshooting* on page 12).

Checking Playback...

2. Check the speakers for playback by first setting the system volume control for a minimum level, and then applying power to your audio system. Play a favorite music or video segment and increase the system volume control to a comfortable level.

   NOTE: You should hear balanced audio reproduction across the entire frequency spectrum. If not, check all wiring connections and refer to the Troubleshooting section on page 12 for more help.

Judging Bass Level...

3. Listen to a variety of music selections and note the bass level. If you feel there is too much bass, you can reduce it in two increments by sliding the BASS switch from its preset MAX setting (see page 11).

   NOTE: The amount of bass you hear will be affected by a number of different factors, including the room's size and shape, the construction materials used to build the room, the listener's position relative to the speakers, and the position of the speakers in the room. If there is too much bass, move the speakers away from nearby walls. Conversely, if you want more bass, place the speakers closer to the walls.

Dolby Pro-Logic...

4. Once you've confirmed the speakers are operating correctly, refer to the manual packed with your Dolby Pro-Logic Surround receiver or preamplifier to perform a system balance test using pink-noise.

5. Make final placement adjustments and level the glides using the procedure shown in Figure 11 (on the next page).

   NOTE: If you prefer using spikes, see Figure 12 on the next page.

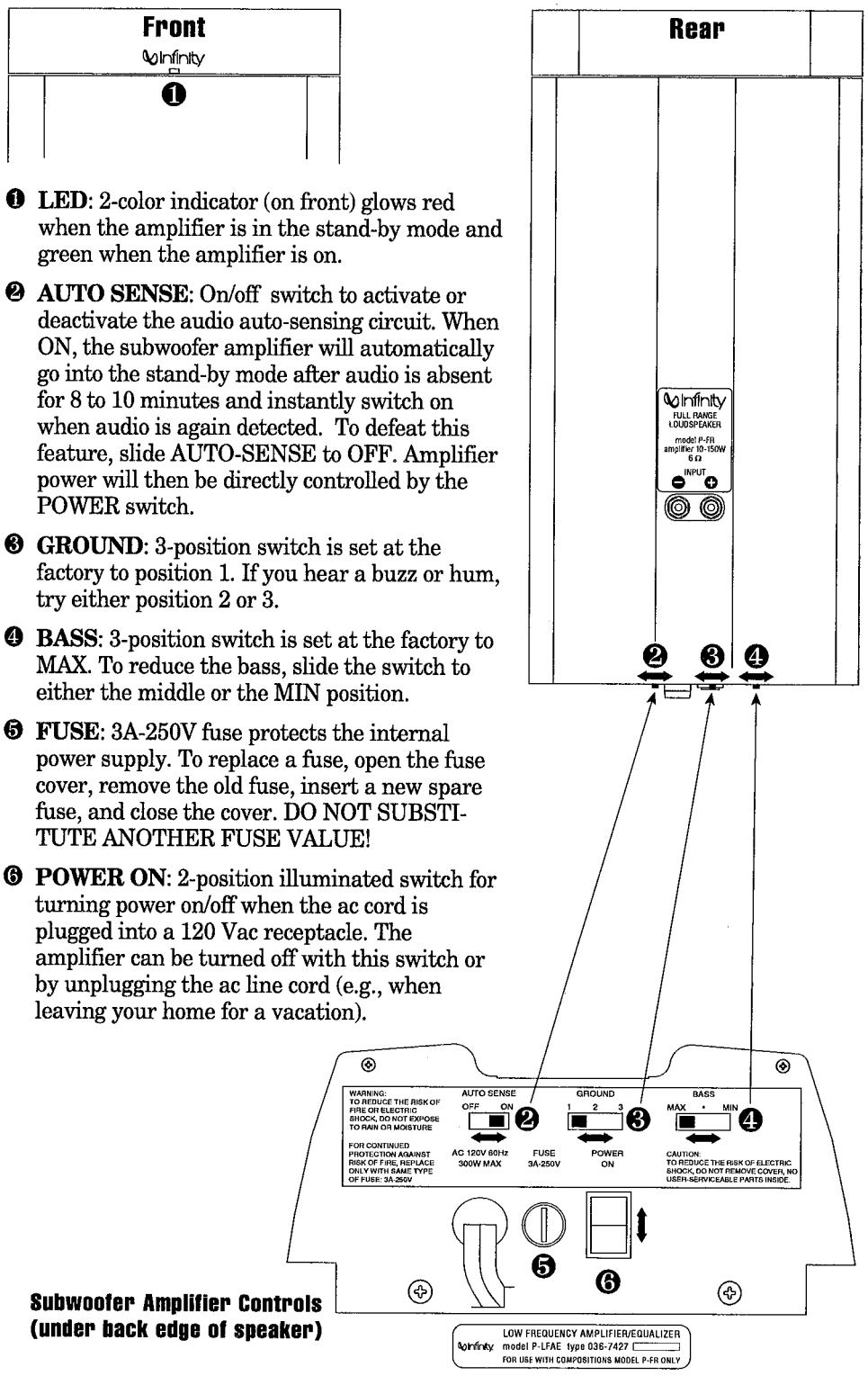
SUBWOOFER AMPLIFIER CONTROLS

Compositions P-FR speakers have built-in subwoofer amplifiers that are equipped with simple slide switches preset at the factory. If you want to adjust any of them, refer to Figure 13 for their location and description.

IMPORTANT!

YOU DO NOT NEED TO LIFT THE BACK OF THE SPEAKER! To adjust a control, slip your hand under the back edge of the speaker and slide the switch.

Figure 13. Subwoofer amplifier controls.



Subwoofer Amplifier Controls (under back edge of speaker)

❶ **LED**: 2-color indicator (on front) glows red when the amplifier is in the stand-by mode and green when the amplifier is on.

❷ **AUTO SENSE**: On/off switch to activate or deactivate the audio auto-sensing circuit. When ON, the subwoofer amplifier will automatically go into the stand-by mode after audio is absent for 8 to 10 minutes and instantly switch on when audio is again detected. To defeat this feature, slide AUTO-SENSE to OFF. Amplifier power will then be directly controlled by the POWER switch.

❸ **GROUND**: 3-position switch is set at the factory to position 1. If you hear a buzz or hum, try either position 2 or 3.

❹ **BASS**: 3-position switch is set at the factory to MAX. To reduce the bass, slide the switch to either the middle or the MIN position.

❺ **FUSE**: 3A-250V fuse protects the internal power supply. To replace a fuse, open the fuse cover, remove the old fuse, insert a new spare fuse, and close the cover. DO NOT SUBSTITUTE ANOTHER FUSE VALUE!

❻ **POWER ON**: 2-position illuminated switch for turning power on/off when the ac cord is plugged into a 120 Vac receptacle. The amplifier can be turned off with this switch or by unplugging the ac line cord (e.g., when leaving your home for a vacation).

Care Of Your Speaker System

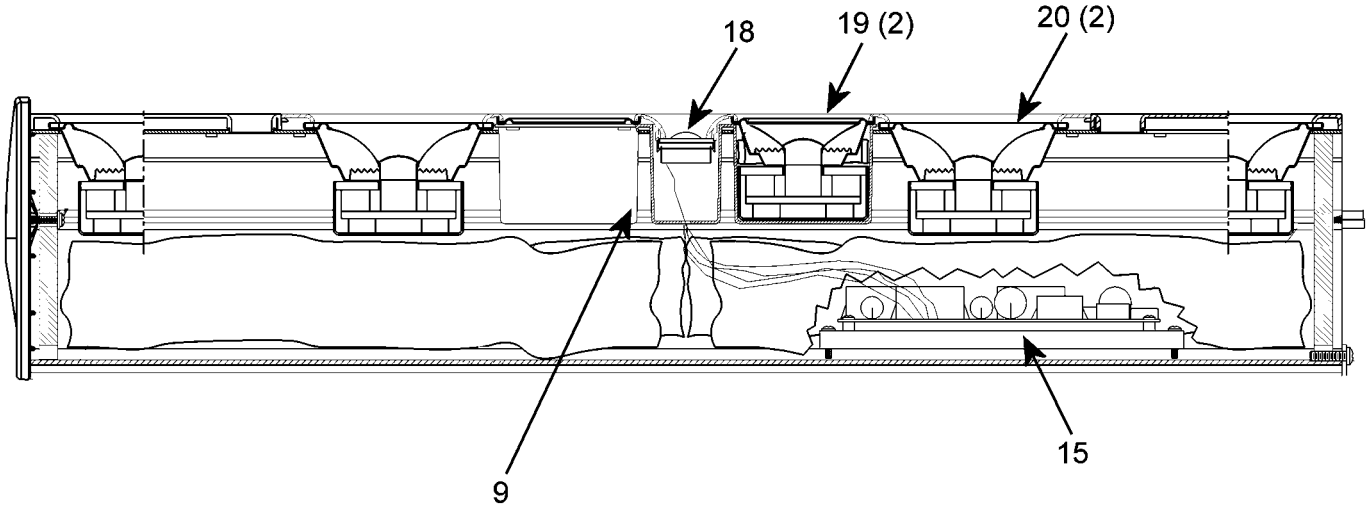
Each Compositions P-FR cabinet is finished in a soft-touch charcoal-grey paint and does not require any routine maintenance. When needed, use a soft cloth, dampened with water only, to remove any fingerprints or to wipe off dust. DO NOT USE ANY CLEANING PRODUCTS OR POLISHES. Clean the grille by gentle vacuuming.

Troubleshooting

Symptom	Cause	Solution
Bass is too loud	Bass reinforcement in room	Move speakers away from walls
		Slide BASS switch to 2 or 3 to reduce bass (see page 11)
Bass sounds distorted	Subwoofer amplifier has reached maximum output	Turn down volume control on receiver or preamplifier
	Receiver tone controls are set too high	Set bass and treble flat; use controls sparingly
	Receiver clips when using high-level inputs	Lower receiver level
Distortion with volume control near minimum	Defective receiver or preamplifier; shorted speaker wires	Repair defective receiver or preamplifier
Distortion on music peaks or sound effects (e.g., pops or rapping noise)	Dynamic soundtrack (e.g., explosions) causes subwoofer to "bottom" out	Turn down master volume control to lower overall range
	Tone controls are set too high	Set bass and treble flat; use controls sparingly
Buzz, hum, or crackle when connecting wires	Connecting wires with power on causes transient signal spikes	Connect wires only when audio system power is off
Buzz or hum when amplifier is on	Grounding problem or ground loop	Slide GROUND switch to 2 or 3 (see page 11)
No sound from subwoofer	Power switch is set to OFF	Slide POWER switch to ON (see page 11)
	Blown fuse	Check or replace fuse (see page 11)

P-FR MECHANICAL PARTS LIST

Ref #	**PART NUMBER**	**DESCRIPTION**
1	A036-7427	AMPLIFIER ASS'Y (120V)
2	Not For Sale	AMPLIFIER ASS'Y (230V)
3	Not For Sale	CABINET - *LEFT*
4	Not For Sale	CABINET - *RIGHT*
5	A026-7375	GRILLE (COLUMN-UPPER)
6	A026-7376	GRILLE (COLUMN-UPPER) NEW VERSION
7	A026-7374	GRILLE (SIDE-WOOFER)
8	A026-7421	GRILLE (FRONT-LOWER)
9	330289-001	PLASTIC MF/HF CUP ASS'Y
10	846-3703	FOOT GLIDES 1/4x20 (8)
11	846-7538	SPIKED FEET 1/4x20 NUT SET
12	760-7536	FOOT BAR COVER
13	528-7628	BINDING POST (BLACK)
14	528-7629	BINDING POST (RED)
15	A015-7381	CROSSOVER ASSY
16	615-8121	POWER CORD
17	550-8122	FUSE HOLDER ASS'Y
18	902-7344	TWEETER (HF UNIT H25)
19	902-7345	4" MIDRANGE (UMF UNIT W/GASKET)
20	902-7346	5 1/4" MIDBASS (LMF W/GASKET)
21	902-7347	12" WOOFER (LF UNIT B300)
22	625-7580	LED STEREO CABLE W/ MALE PLUG
23	870-7607	FUSE 3A, SB 250V
24	707-7426	FOOT BAR
25	716-7524	LOGO



Service Bulletin

Service bulletin INF9708 - Dec. 1997

This is considered a Major repair

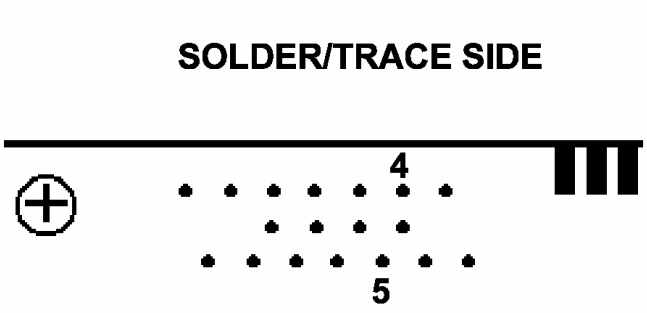
To: All Infinity Service Centers

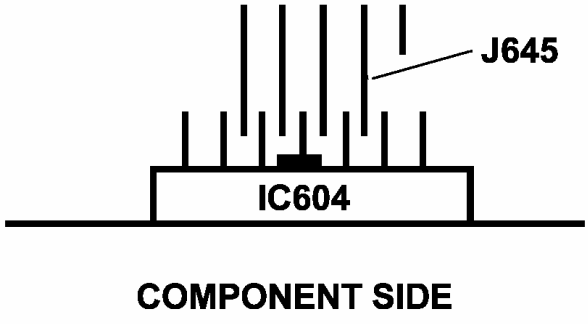
Models: Composition Prelude P-FR

Subject: Speaker receives radio stations

In the event you receive a Composition Prelude P-FR with the complaint of "speaker is picking up radio stations by itself", perform the necessary steps listed below to add a simple filter network to the amplifier(s):

1) Unplug all input and power cables; lay speaker face down on padded surface. No grille removal is necessary; speaker terminal should be pointing straight up in the air.
2) Remove the (2) large flat head Phillips mounting screws at the bottom of the amplifier.
3) Pull the amp assembly off the speaker cabinet; moderate force may be required to "break" the gasket seal.
4) With the amp assembly loose (and wires exposed), unplug the mini-stereo plug from the amp body. With a jeweler's or small screwdriver, loosen the four small screw heads so the four output wires can be removed from the connector. NOTE: It is not necessary to completely remove the screws to detach the wires.
5) With the amp assembly free and on a work bench, slide out and remove the bottom cover to expose the circuit board; you may have to loosen the (4) Phillips screws on the end plate, control side, and tap the board out of its slot to accomplish this.
6) Loosen and remove the 3/8" nuts holding the main (elevated) circuit board in place.
7) Pull circuit board assembly out of the amplifier case; it may be necessary to unplug connector CN603, the speaker connector (red/white wires) to be able to manipulate the board during modification.
8) Locate IC604 (uPC1298V); it's attached to the heatsink. Modifications will be near this IC, above and under the board.
9) Identify area on the solder/trace side of the board, in the area of where the IC604 pins are. See drawing.
10) Solder a 220pf ceramic disc capacitor (Infinity part # 210-3907) across pins 4 & 5; insulate exposed leads on the capacitor with sleeves or tubing so they don't touch adjacent connections on the board.
11) On the component side of the board (See drawing), remove and replace Jumper 645 with a 390 uH Inductor (Infinity part # 499-4313). This can be accomplished by desoldering and removing the jumper wire from it's location (and replacing with the inductor) - ***or*** by cutting into the middle of the jumper wire and "inserting" the inductor. Insulate exposed leads on the inductor with sleeves or tubing so they don't touch adjacent connections on the board.
12) Attach connector CN603; replace circuit board back into inside cover; replace and tighten the three 3/8" nuts; replace bottom cover, replace end panel if loosened.
13) Re-attached amplifier assembly onto speaker cabinet in the reverse order mentioned above. OBSERVE POLARITY on main speaker wires: MF (midrange): White to (+), White/stripe to (-)
LF (woofer): Red to (+), Red/stripe to (-)





ENGINEERING CHANGE

ECO# 1363

DATE 7-11-95

COMPOSITION P-FR

PART AFFECTED:

A036-7427 - 120V AMPLIFIER

A036-7694 - 230V AMPLIFIER

REASON FOR CHANGE: PERFORMANCE IMPROVEMENT

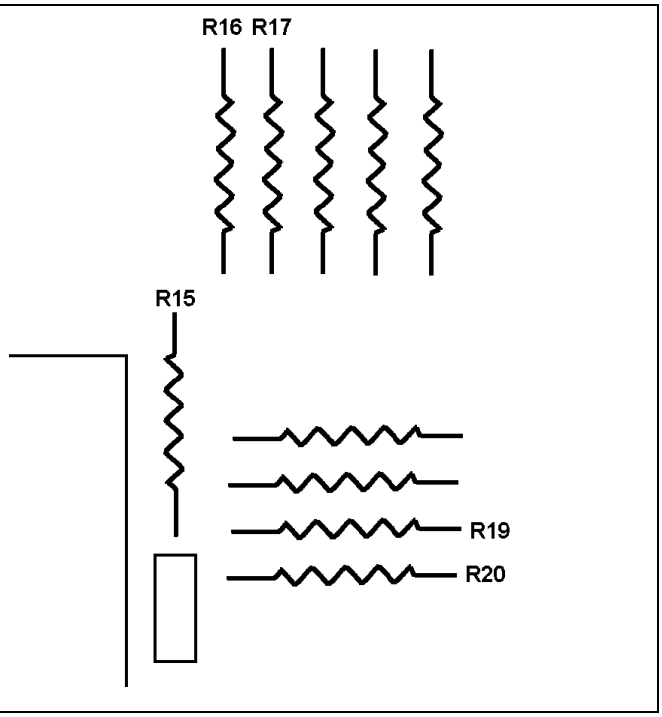
THIS CHANGE INCREASES THE GAIN OF THE AMPLIFIER ON MAX SETTING BY +4.5dB, AND INCREASES SWITCH STEP SIZE TO 5dB PER STEP.

DESCRIPTION OF CHANGE:

PREAMP PCB -

CHANGE RESISTOR VALUES (ALL NEW RESISTORS 1 % TOL. 1/4W METAL FILM)

Ref. Designator	FORMER VALUE	NEW VALUE
R15	10KΩ	15KΩ
R16	7.5KΩ	9.1KΩ
R17	18KΩ	11KΩ
R19	560Ω	200Ω
R20	3.9KΩ	2.42KΩ

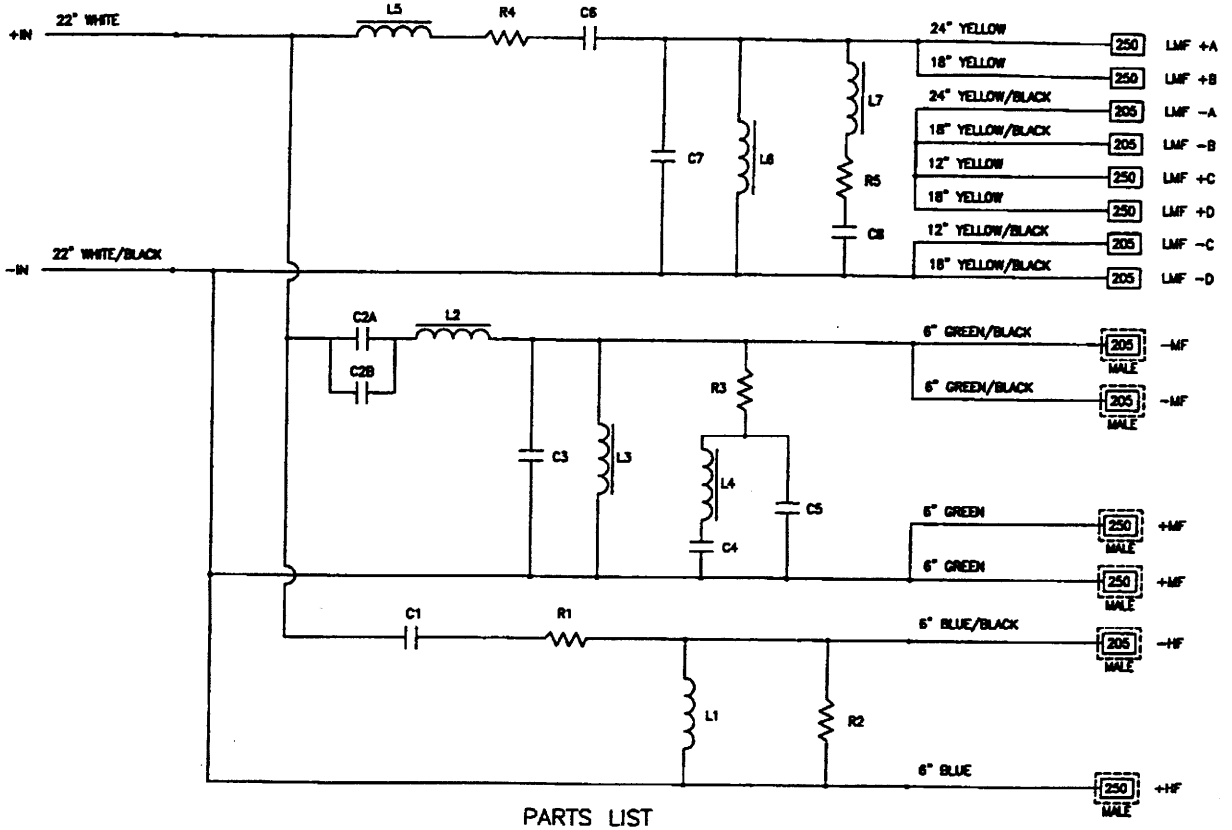


IDENTIFICATION OF FACTORY MODIFIED AMPLIFIERS:

1) LED WIRE HAS MINI-STEREO PLUG JACK IN AMPLIFIER

2) LABEL "REV "B" ON AMPLIFIER

INFINITY PRELUDE P-FR PASSIVE NETWORK A015-7381



PARTS LIST

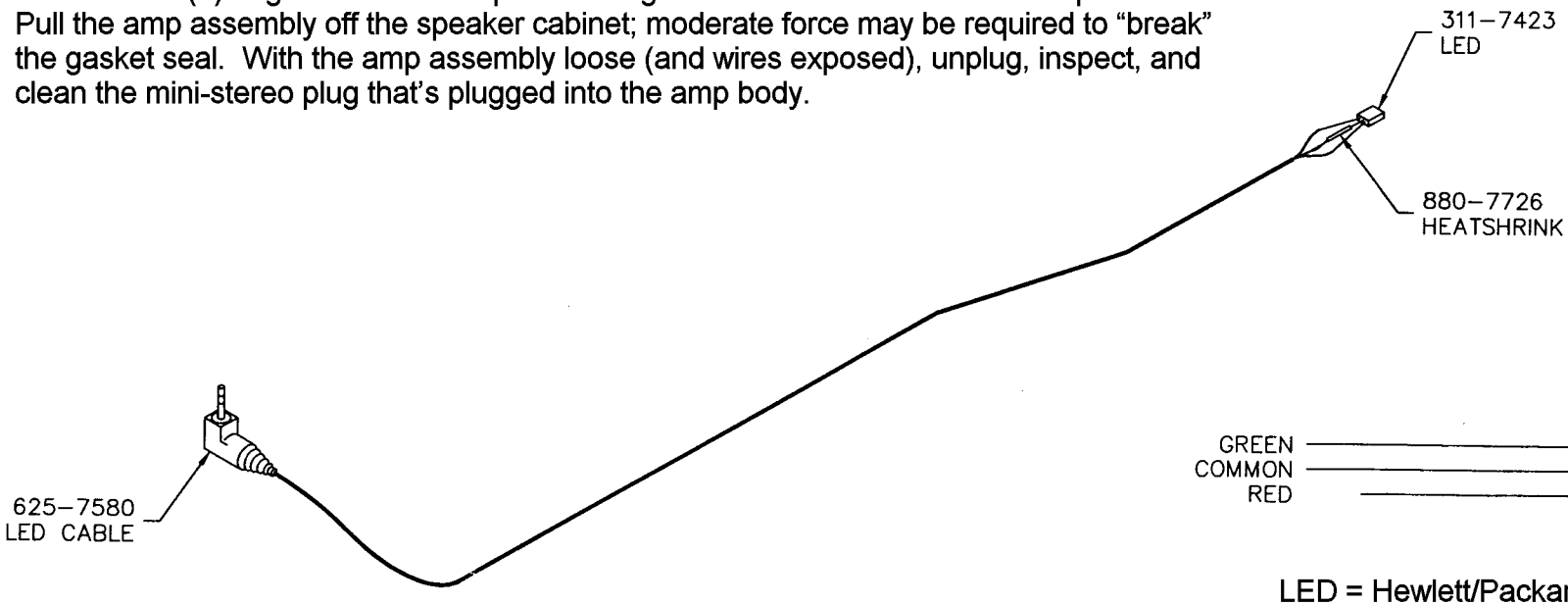
C1	6.8 mfd, 400V, SOLEN, AXIAL, ±5%, 24X33mm C.S.
C2A	56 mfd, 50V, NON-POLAR, AXIAL, 10% DF, ±5%, 12X31mm C.S.
C2B	3.9 mfd, 400V, SOLEN, AXIAL, ±5%, 18X33mm C.S.
C3	10 mfd, 50V, NON-POLAR, AXIAL, 4% DF, ±5%, 12X26mm C.S.
C4	100 mfd, 50V, NON-POLAR, AXIAL, 10% DF, ±5%, 12X31mm C.S.
C5	30 mfd, 50V, NON-POLAR, AXIAL, 10% DF, ±5%, 12X26mm C.S.
C6	200 mfd, 50V, NON-POLAR, AXIAL, 10% DF, ±5%, 12X31mm C.S., TESTED @ 120 Hz
C7	68 mfd, 50V, NON-POLAR, AXIAL, 10% DF, ±5%, 12X31mm C.S.
C8	300 mfd, 50V, NON-POLAR, AXIAL, 10% DF, ±5%, 16X34mm C.S., TESTED @ 120 Hz
L1	0.12 mH, 25X12X12mm, AIR CORE, 0.50 ohm DCR, ±5%, 24 AWG
L2	0.41 mH, 12.7X30mm, IRON POWDER ROD, 0.13 ohm DCR, ±5%, 18 AWG
L3,L4	4.30 mH, 12.7X30mm ROD (W/24.5X5mm ENDCAPS), IRON POWDER ROD, 1.00 ohm DCR, ±5%, 23 AWG
L5	5.30 mH, 9.5X25mm, IRON POWDER ROD, 2.00 ohm DCR, ±5%, 25 AWG
L6,L7	20.0 mH, 12.7X30mm ROD (W/24.5X5mm ENDCAPS), IRON POWDER ROD, 3.30 ohm DCR, ±5%, 25 AWG
R1	2.0 ohm, 5W, ±5%, MO
R2	33.0 ohm, 5W, ±5%
R3	5.60 ohm, 10W, ±5%
R4,R5	2.20 ohm, 5W, ±5%
205	FASTON, FEMALE, .205 x .020, BRASS
250	FASTON, FEMALE, .250 x .032, TINNED BRASS
205M	FASTON, MALE, .250 x .020, TINNED BRASS
250M	FASTON, MALE, .250 x .032, TINNED BRASS
WIRES	18 AWG, UL-1015
PCB	MATERIAL: CEM-1 COPPER: 2 OZ.

NOTES:

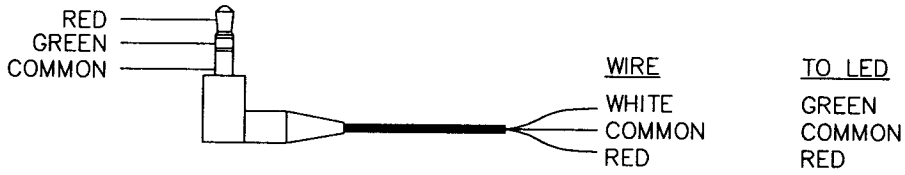
1. ALL COMPONENTS TESTED @ 1 Khz, UNLESS OTHERWISE SPECIFIED.
2. DASHED LINES INDICATE SLEEVED 14 AWG BUSS WIRE. (SOLDER SIDE)

LED ASS'Y

TIP:
For a complaint of "LED has stopped working", or one color is not working, likely cause is a poor or oxidized connection between the mini-stereo plug on the LED's cable harness (625-7580) and the amplifier.
Unplug all input and power cables; lay speaker face down on padded surface.
No grille removal is necessary; speaker terminal should be pointing straight up in the air.
Remove the (2) large flat head Phillips mounting screws at the bottom of the amplifier.
Pull the amp assembly off the speaker cabinet; moderate force may be required to "break" the gasket seal. With the amp assembly loose (and wires exposed), unplug, inspect, and clean the mini-stereo plug that's plugged into the amp body.

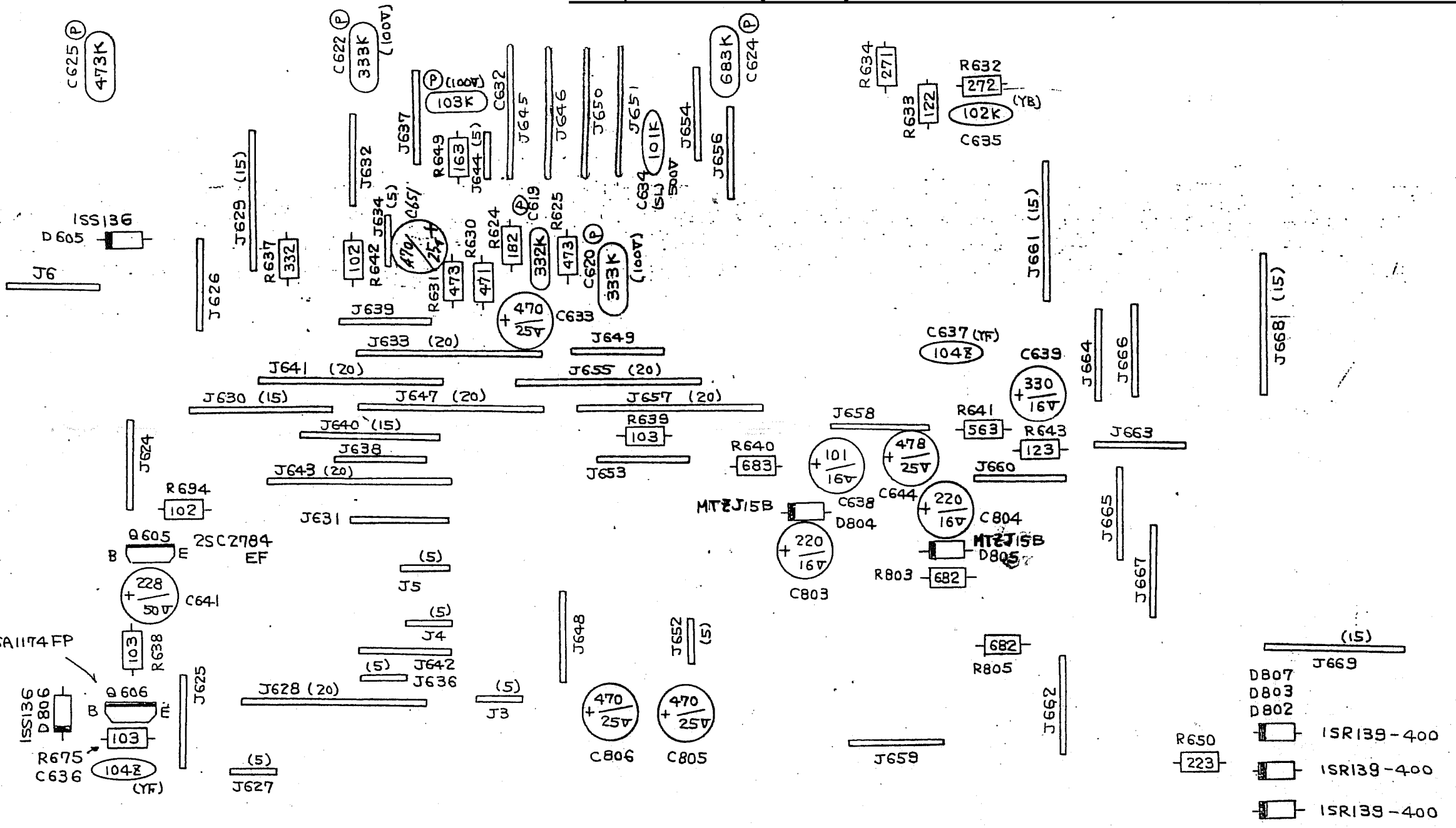


LED = Hewlett/Packard # HLMP-0800



COUNTRYMAN #1510035ST

Infinity	
LED ASSEMBLY	
P/N: 625–7836	
DWG NO: 625–7836–02280–53A	
DRAWN BY: B. FRANK	
DATE 09–28–95	SCALE N/A
APPROVED:	


C625 P 473K
C622 P 333K (100V)
C624 P 683K
R634 271
R632 272
R633 122
102K (YB)
C635
J637
J632
J645
J646
J650
J651
J654
J656
R649 163
J644 (5)
C632
103K (100V)
C634 (SL) 101F 500V
J629 (15)
R637 332
J626
J6
ISS136
D605
R642 102
J634 (5)
C631 470 25V
R631 473
R630 471
R624 182
C619 P
332K
R625 473
C620 P 333K (100V)
J639
J633 (20)
J649
C633 470 25V
J641 (20)
J655 (20)
J630 (15)
J647 (20)
J657 (20)
J640 (15)
J638
J643 (20)
J631
J624
R694 102
J661 (15)
J664
J666
J668 (15)
C637 (YF) 104Z
C639 330 16V
R641 563
R643 123
J658
J663
J660
R640 683
R639 103
J653
C638 101 16V
C644 478 25V
C804 220 16V
MTZJ15B D804
MTZJ15B D805
C803 220 16V
R803 682
J665
J667
Q605 2SC2784 EF
B E
C641 228 50V
(5) J5
(5) J4
(5) J642
J636
J628 (20)
(5) J3
J648
J652 (5)
C806 470 25V
C805 470 25V
2SA1174FP
Q606
B E
R638 103
ISS136 D806
R675 103
C636 104Z (YF)
J625
(5) J627
682
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D803
D802
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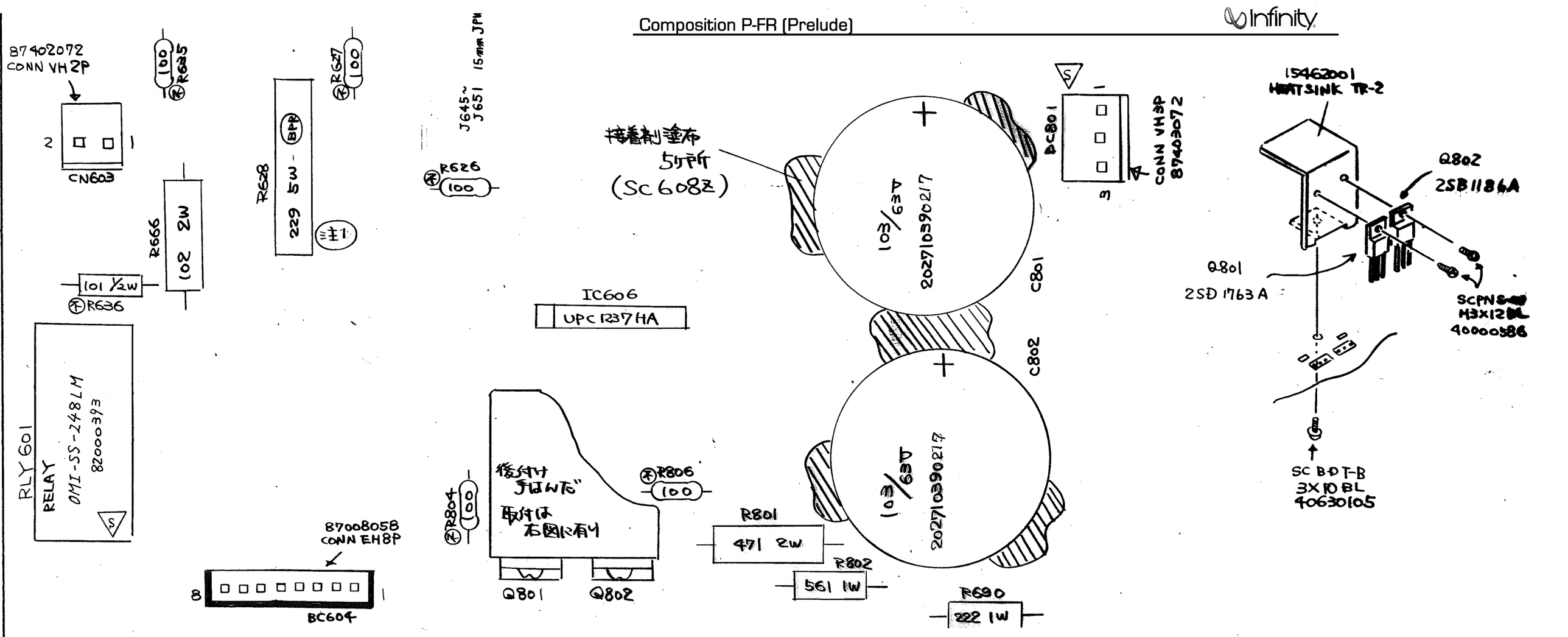
ISR139-400

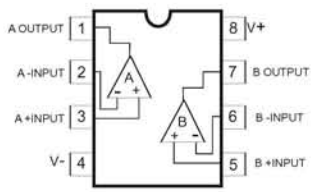

87402072
CONN VH2P
CN603
R635 100
R627 100
R628 229 5.3 BPR
R666 102 2W
R636 101 1/2W
RLY601
RELAY
OMI-SS-248LM
82000393
87008058
CONN EH8P
BC604
J645~J651 15mm JPN
R626 100
接着剤塗布
5ヶ所
(SC608Z)
IC606
UPC1237HA
後付け
手はんだ
取付は
右図に有り
R804 100
R806 100
Q801
Q802
R801 471 2W
R802 561 1W
R690 222 1W
C801 103/63V 2027103902217
C802 103/63V 2027103902217
BC801
CONN VH3P
87403072
15462001
HEATSINK TR-2
Q802
2SB1186A
Q801
2SD1763A
SCPN3×12BL
M3×12BL
40000586
SC BPT-B
3X10 BL
40630105

NOTE on the amplifier: A Bill of Materials or detailed Parts List is not available for the Composition PF-R. If repair to component level is necessary, Infinity Customer Service should be contacted to supply any needed parts @ (516) 674-4463 ext. 6553.

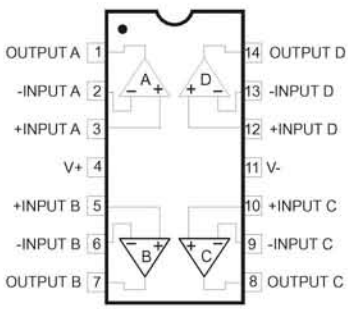
Ref. Designator	Description	Infinity Part Number
U1	TL074 Quad Op-amp	TL074CN
U2	TL072 Dual Op-amp	053-007200-000
U3	NLM4558L Dual Op-amp	19006M4558L
IC604	UPC1298V Power Amp Driver	1-09-021
IC606	UPC1237HA Protect IC	205419000206
Q601	2SC3856	347-8027
Q602	2SA1492	347-8026
Q10,Q11	DTA124ES PNP Transistor	1301-124000-400
Q5,6,9	DTC124ES NPN Transistor	TR1268

Integrated Circuit Diagrams

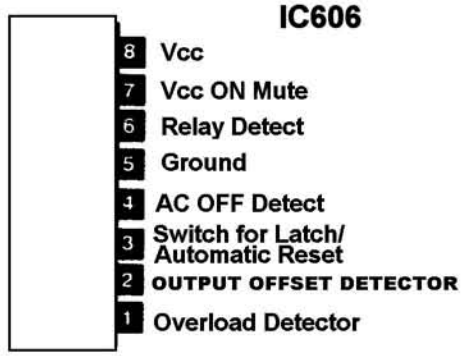
OPAMP, DUAL 8PIN
TL072
U2



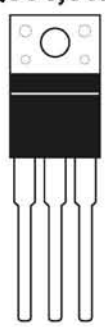
OPAMP, QUAD 14P TL074
U1



uPC1237HA PROTECT IC
IC606

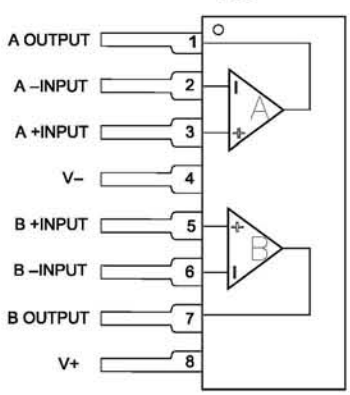


2SD1913, 2SC1274
Q801,802

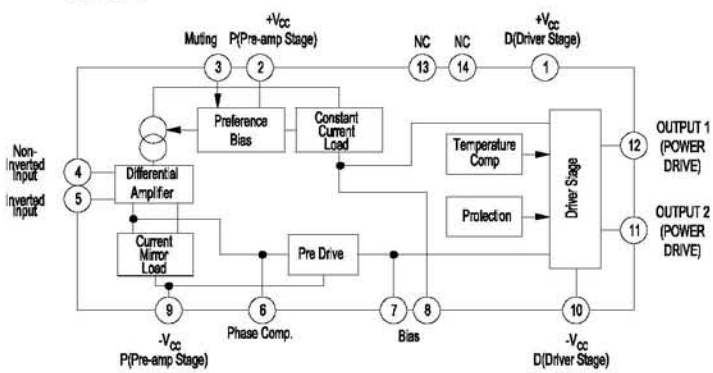


B C E

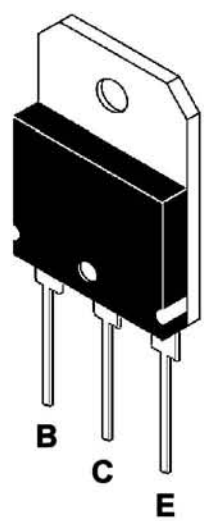
NJM4558L DUAL OP-AMP
U3



UPC1298v 50-80W POWER AMP DRIVER
IC604

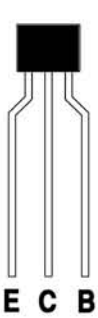


2SC3856, 2SA1492
Q601,602



B C E

2SA1174, 2SA1175
2SC2784, DTA124ES
DTC124ES
Q5-11, Q605,606

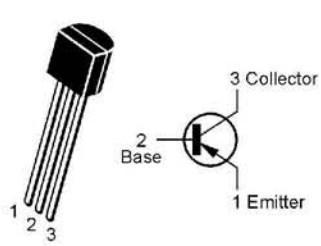


E C B

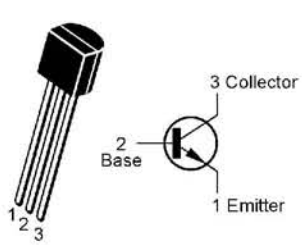
2SD1189
Q607

1. Emitter
2. Collector
3. Base

BC213C
Q1,Q4



BC183C
Q2,Q3



Composition P-FR (Prelude)

Infinity

REVISIONS				
ECO	REV.	DESCRIPTION	DATE	APPROVED
1363	A	RELEASE FOR PROD.	02/02/96	

FILTER BOARD

AMPLIFIER BOARD

INPUT B.J.

HI

LO

SW1

MAX

LEVEL

MIN

TO +AUTO POWER +15V

TO −AUTO POWER −15V

+ AUTO POWER +15V

AUTO POWER ON/OFF

SW3

ON

OFF

AUTOPOWER

RED

GREEN

COMMON (GROUND)

ON SPEAKER CABINET

RED LED

COM. (GROUND)

GREEN LED

120V 60 HZ

SW603

F801 120V/3A

T

T801

RLED

CN802

BC801

RLY601

CN603

+MF

−MF

+LF

−LF

IC806 UPC1237HA

OVERLOAD

DC DET

LATCH

AC OFF

GROUND

DRIVER

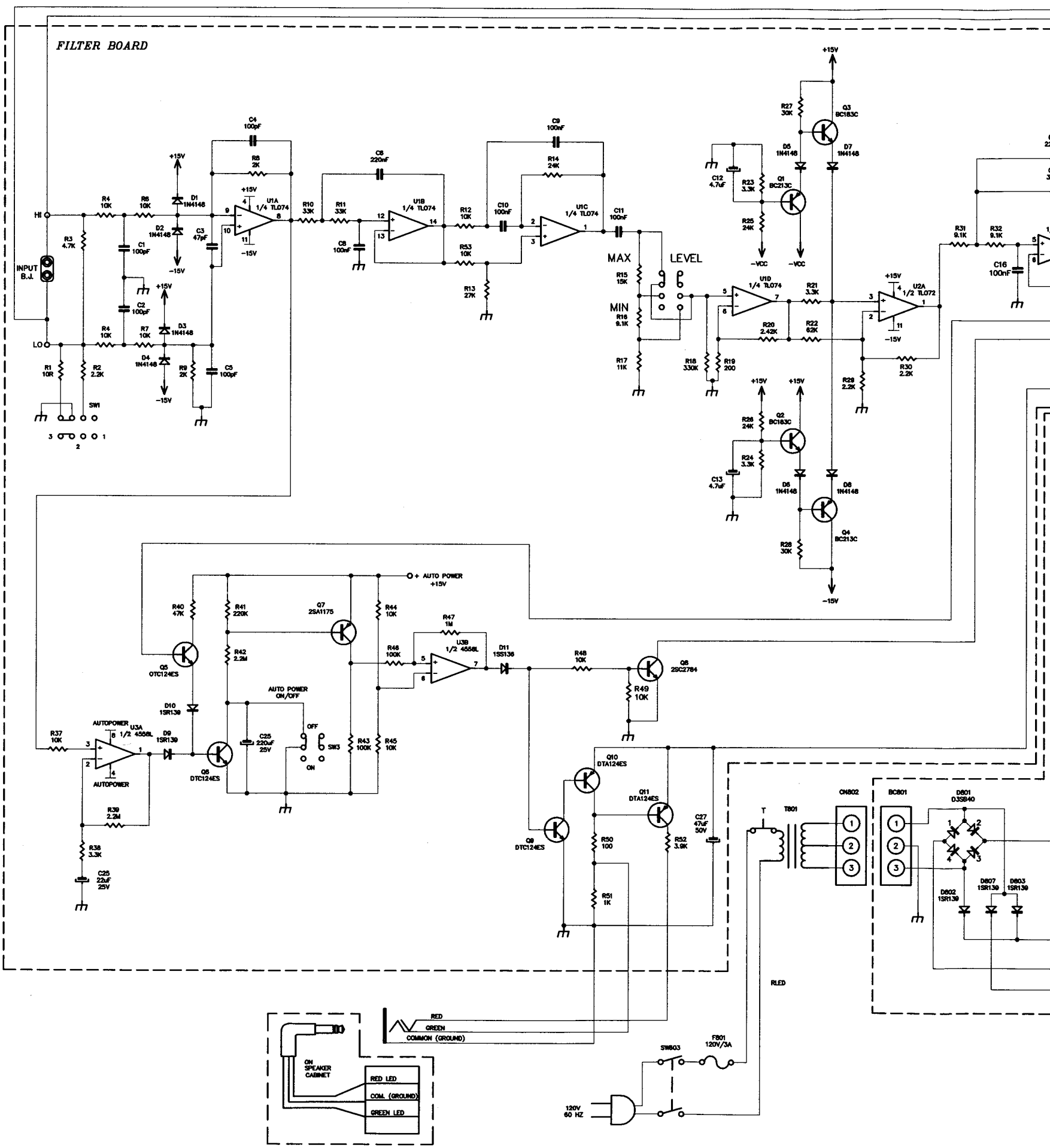
MUTING

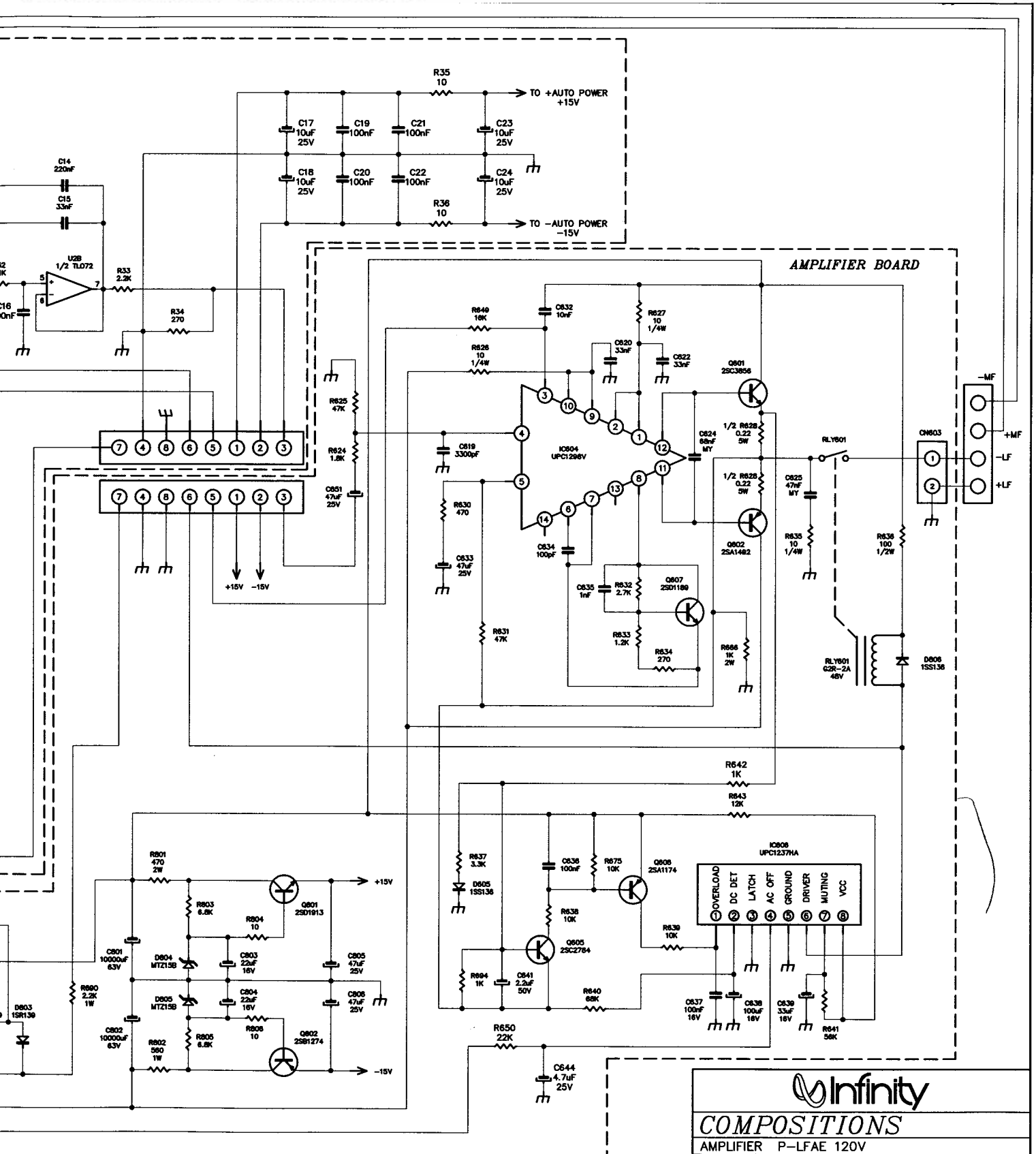
VCC

IC604 UPC1298V

COMPOSITIONS	
AMPLIFIER P-LFAE 120V	
P/N: .036...7427	
DWG NO: −	
DRAWN BY: H.FELDSTEDT	DATE 02-02-96
APPROVED: −	2-21-96
DO NOT SCALE DRAWING	SCALE −
CAD FILE NOT TO BE USED FOR CNC PROGRAM	
CAD FILE NAME: 0367427A	
TOLERANCES: ANG: ± = .5° FRACT. ± = 1/3 DECIMALS: .XX ± = .01 .XXX ± = .005	
REVISION: A	SHEET 1 OF 1

Infinity


FILTER BOARD
INPUT B.J.
HI
LO
SW1
MAX
LEVEL
MIN
+15V
-15V
-VCC
AUTO POWER ON/OFF
AUTOPOWER
OFF
ON
SW3
+ AUTO POWER +15V
RED
GREEN
COMMON (GROUND)
ON SPEAKER CABINET
RED LED
COM. (GROUND)
GREEN LED
SW803
F801 120V/3A
120V 60 HZ
T
T801
CN802
BC801
D801 D3SB40
D802 1SR139
D803 1SR139
D807 1SR139
RLED



Infinity	
COMPOSITIONS	
AMPLIFIER P-LFAE 120V	
P/N: .036...7427	
DWG NO: -	
DRAWN BY: H.FELDSTEDT	DATE 02-02-96
APPROVED: -	2-21-96
DO NOT SCALE DRAWING	SCALE -
CAD FILE NOT TO BE USED FOR CNC PROGRAM	
CAD FILE NAME: 0367427A	
TOLERANCES: ANG: ± = .5° FRACT. ± = 1/32 DECIMALS: .XX ± = .01 .XXX ± = .005	
REVISION: A	SHEET 1 OF 1